CLAIMS

- 1. A method of preventing or treating carnitine deficiency in chronic uremic patients undergoing periodic dialysis comprising administering to the patient at the conclusion of the dialysis an effective amount of L-carnitine or of a pharmaceutically acceptable salt thereof.
- 2. The method of claim 1, wherein the administration is by the intravenous route.
- 3. The method of claim 1, wherein the administration is by the peritoneal route.
- 4. The method of claim 1, wherein from about 10 to about 20 mg/kg body weight of carnitine, calculated as L-carnitine, is administered into a venous return line after a dialysis session.
- 5. The method of claim 4, wherein the treatment is repeated twice a week every 44 hours, then after 68 hours.
 - 6. The method of claim 5, wherein the treatment is continued for 3-4 weeks, monitoring pre-dialytic levels of carnitine.
 - 7. The method of claim 6, wherein pre-dialytic levels of carnitine are monitored.
 - 8. The method of claim 7, wherein pre-dialytic levels of carnitine are equal or lower than 40-50µM.
 - 9. The method of claim 4, wherein a maintenance dosage is provided, administering a dose of 5 mg/kg of carnitine.

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- 10. The method of claim 9, wherein the maintenance dosage is repeated twice a week every 44 hours, then after 68 hours.
- 11. The method of claim 1, wherein carnitine fumarate is the pharmaceutically acceptable salt.

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- 12. The method of claim 11, wherein the patient is affected by hypervolemic heart.
- 13. The method of claim 11, wherein the patient is affected by diabetes.
- 14. A method of preventing or treating carnitine deficiency in chronic uremic patients undergoing periodic dialysis comprising administering to the patient at the conclusion of the dialysis into a venous return line after a dialysis session an amount of L-carnitine or of a pharmaceutically acceptable salt thereof effective to restore a level of carnitine in the patent to a pre-dialytic level, and thereafter reducing the amount of carnitine administered to a level sufficient to maintain carnitine levels to the pre-dialytic level.
- 15. A method of preventing or treating carnitine deficiency in chronic uremic patients undergoing periodic dialysis comprising administering to the patient at the conclusion of the dialysis into a venous return line after a dialysis session from about 10 to about 20 mg/kg body weight of carnitine, calculated as L-carnitine, or of a pharmaceutically

acceptable salt thereof to restore a level of carnitine in the patent to a pre-dialytic level, and thereafter reducing the amount of carnitine administered to a level sufficient to maintain carnitine levels to the pre-dialytic level

- 16. The method of claim 15, wherein the treatment to achieve pre-dialytic levels is on a weekly basis repeated twice a week every 44 hours, then after 68 hours.
 - 17. The method of claim 16, wherein the treatment is continued for 3-4 weeks.
 - 18. The method of claim 14 or 15, wherein pre-dialytic levels of carnitine are equal or lower than $40\text{-}50\mu\text{M}$.
 - 19. The method of claim 14 of 15, wherein a maintenance dosage of about 5 mg/kg of carnitine is administered

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